



Test method T616

Estimated oil content of total binder of
cold mix

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Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	Jan 2000
Ed 2/ Rev 0	All	Reformatted RMS template	J. Friedrich	November 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T616 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T616

Estimated oil content of total binder of cold mix

1. Scope

This test method sets out the procedure to calculate the estimated oil content of total binder of cold mix using the results from Test Methods T622 and T623.

2. Procedure

Using the values M_s and M_b obtained from T623 and V from T622, perform the following calculations.

3. Calculations

Estimated oil content of total binder in water-free mix

(a) Volume of residual binder

$$V_{rb} = \frac{M_b}{1.035} \quad (\text{cm}^3)$$

(b) Volume of volatiles

$$V_v = \frac{\frac{V}{100} \times M_s}{0.9} \quad (\text{cm}^3)$$

(c) Volume of total binder

$$V_b = V_{rb} + V_v \quad (\text{cm}^3)$$

(d) Weight of volatiles

$$M_v = \frac{V}{100} \times M_s \quad (\text{g})$$

(e) Estimated oil content of total binder

$$EOC = \frac{V_b}{V_B} \times 100 \quad (\%)$$

(f) Density of total binder

$$\rho_b = \frac{M_b + M_v}{V_b} \quad (\text{g/cm}^3)$$

Where:	V_{rb}	= Volume of residual binder	(cm ³)
	M_b	= Wt. of binder (from T623)	(g)
	V_v	= Volume of volatiles	(cm ³)
	V	= Volatile Content	(%)
	M_s	= Wt. of sample (T623)	(g)
	V_b	= Volume of total binder	(cm ³)
	M_V	= Wt. of volatiles	(g)
	EOC	= Estimated oil content	(%)
	ρ_b	= Density of total binder	(t/m ³) (g/cm ³)

4. Record

Record the density of the total binder to the nearest 0.001 t/m³.

5. Reporting

Report the estimated percentage oil content of total binder to the nearest 0.1 %.